



Short tandem repeat analysis by Whole Genome Sequencing

Historically, detection of repeat expansions has only been possible with polymerase chain reaction-based assays or Southern blots, which are costly and time-consuming methods. We are now able to rule out repeat expansion disorders by identifying and characterizing non-expanded (normal) alleles and to profile almost all genetic variations simultaneously using whole genome sequencing.

Gene	Condition
<i>AFF2</i>	Fragile X syndrome, FRAXE type
<i>AR</i>	Spinal bulbar muscular atrophy
<i>ATN1</i>	Dentatorubral-pallidoluysian atrophy
<i>ATXN1</i>	Spinocerebellar ataxia type 1
<i>ATXN10</i>	Spinocerebellar ataxia type 10
<i>ATXN2</i>	Spinocerebellar ataxia type 2, L-dopa responsive parkinsonism ALS type 13
<i>ATXN3</i>	Spinocerebellar ataxia type 3
<i>ATXN7</i>	Spinocerebellar ataxia type 7
<i>ATXN8OS</i>	Spinocerebellar ataxia type 8
<i>C9orf72</i>	Frontotemporal dementia, ALS type 1, hereditary ataxia
<i>CACNA1A</i>	Spinocerebellar ataxia type 6
<i>CNBP</i>	Myotonic dystrophy type 2
<i>COMP</i>	Pseudo-achondroplasia
<i>CSTB</i>	Unverricht-Lundborg disease
<i>DIP2B</i>	Intellectual developmental disorder, autosomal dominant, FRA12A type
<i>DMPK</i>	Myotonic dystrophy type 1

Gene	Condition
<i>FMR1</i>	Fragile X syndrome, fragile X-associated tremor/ataxia syndrome
<i>FOXL2</i>	Blepharophimosis, ptosis, epicanthus inversus
<i>FXN</i>	Friedreich ataxia
<i>HOXD13</i>	Syndactyly, type V
<i>NOP56</i>	Spinocerebellar ataxia type 36
<i>PABPN1</i>	Oculopharyngeal muscular dystrophy
<i>PHOX2B</i>	Congenital central hypoventilation syndrome
<i>PPP2R2B</i>	Spinocerebellar ataxia type 12
<i>RUNX2</i>	Cleidocranial dysplasia
<i>SOX3</i>	Panhypopituitarism and intellectual disability with growth hormone deficiency
<i>TBP</i>	Spinocerebellar ataxia type 17
<i>TBX1</i>	Tetralogy of Fallot
<i>TCF4</i>	Fuchs endothelial corneal dystrophy
<i>ZIC2</i>	Holoprosencephaly type 5
<i>ZIC3</i>	VACTERL

The limit of detection of an expanded allele size on NGS based methods is currently not well established. Thus, if an allele is expanded, depending on the size, further confirmatory diagnostic testing may be required to fully characterize the repeat size to provide a definitive diagnosis.

Why choose Revvity Omics?

- State-of-the-art assay design curated by expertly trained, board-certified molecular geneticists based on gene/disease evidence and sequencing complexity
- Latest Technology and proprietary bioinformatics pipelines to integrate the detection of sequencing variants (SNVs), copy number variants (CNVs) and mitochondrial DNA (mtDNA) in a single assay.
- Variant interpretation and reporting performed by certified American Board of Medical Genetics and Genomics (ABMGG) Clinical Geneticists and Genetic Counselors
- Reporting structured to include interpretation and guidance for patients and clinicians according to guidelines of the American College of Medical Genetics and Genomics.
- Revvity Omics laboratories hold many accreditations depending upon lab location, including CLIA, CAP, ISO, JACHO, COLA, NABL, NSAI, and various U.S. state licenses and permits, including New York State.

How to order?

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